ALL IN
WE BET IT INCLUDES EVERYTHING FOR A MEETING ROOM

MMX8x4–HT420M HDMI and HDBaseT™ Matrix Switcher with Event Manager Control Feature, Active Microphone Input, Audio Mixer DSP, Bi-directional Audio and Control Ports
NEW 8x4 Matrix Switchers with

Special Audio Input Block, DSP Mixer and
Enhanced Event Manager Control

MMX8x4-HT420M  |  MMX8x4-HT400MC
Everything you need for a conference room environment

Special Audio Input Block includes input ports for microphone and line-in. The built-in sound mixer DSP allows for free mixing of the audio signals from the de-embedded HDMI, the microphone or the line-in. The MIC port can also supply phantom power to the connected microphone.

Voice Activated Presenter Focus allows the volume of the voice of the speaker to become automatically focused, and the volume of the rest of the sounds to be lowered, as soon as the presenter starts speaking.

The built-in DSP provides audio mixer services including fader, equalizer, mute, balance and gain.

The unit offers Ethernet, RS-232, Serial and IR command injection services allowing to send any control command directly from the LAN connection to remote end points.

The built-in Event Manager feature provides all the necessary control via multiple RS-232, IR, Ethernet, Relay and GPIO ports.
MMX8x4-HT420M

MMX8x4-HT420M is a standalone matrix switcher specifically designed for conference room environments. It has eight video inputs (four HDMI and four TPS) and four video outputs (two HDMI outputs and two TPS outputs). 4K / UHD (30Hz RGB 4:4:4, 60Hz YCbCr 4:2:0), 3D capabilities and HDCP are fully supported.

MMX8x4-HT420M has a dedicated Special Audio Input Block with input ports for microphone and line-in. The built-in sound mixer allows for free mixing of the audio signals from the de-embedded HDMI, the microphone or the line-in. The Special Audio Input block includes a voice activation feature, allowing the volume of the voice of a person speaking into the microphone to be automatically focused, and the volume of the rest of the sounds to be lowered as soon as the presenter starts speaking.

The device also has two balanced 5-pole Phoenix audio connectors at two of the HDMI inputs. The audio signal direction of the port can be changed with the Lightware Device Controller software, so these audio ports can be either input or output ports.

The audio signal presented by the built-in mixer is channeled to one shared, balanced 5-pole Phoenix audio output, including the mixed audio of a selected, de-embedded HDMI audio, the microphone and the Line-in.

PoE 48V remote powering is available on every I/O TPS ports for cost-effective installations.

MMX8x4-HT420M receives and transmits digital video, audio and control to a distance of up to 170m over a single CAT6 cable. Using factory, custom or transparent EDID emulation the user can fix and lock EDID data on each input connector. Advanced EDID Management forces the required resolution from any video source and fixes the output format to conform to the system requirements. The unit can be controlled via RS-232, Ethernet or USB ports, but it also offers Ethernet, RS-232, Serial and IR command injection capabilities, allowing to send any control command directly from the LAN connection to remote end points.

The built-in Event Manager feature provides control via RS-232, IR, Ethernet, Relay and GPIO ports. The MMX8x4-HT420M is compatible with both HDBaseT™ extenders and HDBaseT™ compliant displays.

Plus Features:
- Support to send raw Infrared messages (Pronto HEX codes) to control TVs, Blurays, etc with connected IR emitters
- Support to send CEC messages to control TVs, Blurays etc which are conencted on HDMI ports
- Support to recognize incoming CEC messages in Event Manager and trigger custom actions
- Support to recognize incoming RS-232 messages to integrate with 3rd party devices like VC codecs
- Increased number of Events to 100

MMX8x4-HT400MC

MMX8x4-HT400MC is a standalone matrix switcher specifically designed for conference room environments.

This device is a cost-effective version of the MMX8x4-HT420M with fewer features and services, and with four HDMI video outputs, lacking the two TPS output ports of the full feature product.

The table lists the available features and services of the two products in comparison:
# Standalone Matrix Switchers

## HDMI and TPS Matrix Switcher with Special Audio Inputs

### MMX8x4-HT400MC

Part No: 9131 0041

### Features and Services

<table>
<thead>
<tr>
<th></th>
<th>MMX8x4-HT4020M</th>
<th>MMX8x4-HT400MC</th>
</tr>
</thead>
<tbody>
<tr>
<td>4K / UHD (30Hz RGB 4:4:4, 60Hz YCbCr 4:2:0) and 3D capabilities</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>HDMI input ports</td>
<td>4x</td>
<td>4x</td>
</tr>
<tr>
<td>TPS (HDBaseT) input ports</td>
<td>4x</td>
<td>4x</td>
</tr>
<tr>
<td>HDMI output ports</td>
<td>2x</td>
<td>4x</td>
</tr>
<tr>
<td>TPS (HDBaseT) output ports</td>
<td>2x</td>
<td>❌</td>
</tr>
<tr>
<td>Up to 170 m transmission over TPS Long Reach Mode for Full HD signals</td>
<td>✔</td>
<td>❌</td>
</tr>
<tr>
<td>Balanced bi-directional analog audio ports</td>
<td>2x</td>
<td>❌</td>
</tr>
<tr>
<td>Balanced analog audio input for the built-in mixer</td>
<td>1x</td>
<td>1x</td>
</tr>
<tr>
<td>Special Audio Input Block for active microphone and line-in</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Built-in sound mixer DSP with volume automation</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Ethernet port for device control</td>
<td>1x</td>
<td>1x</td>
</tr>
<tr>
<td>Ethernet ports for external device control</td>
<td>2x</td>
<td>❌</td>
</tr>
<tr>
<td>Ethernet via TPS</td>
<td>✔</td>
<td>❌</td>
</tr>
<tr>
<td>Bi-directional RS-232 ports</td>
<td>2x</td>
<td>2x</td>
</tr>
<tr>
<td>Serial/IR ports for display control</td>
<td>2x</td>
<td>2x</td>
</tr>
<tr>
<td>IR ports for display control</td>
<td>4x</td>
<td>2x</td>
</tr>
<tr>
<td>Relay output ports</td>
<td>4x</td>
<td>❌</td>
</tr>
<tr>
<td>GPIO port</td>
<td>6x GPIO + 5V + GND</td>
<td>❌</td>
</tr>
<tr>
<td>PoE function to feed remote power to connected devices</td>
<td>✔</td>
<td>❌</td>
</tr>
<tr>
<td>Front panel LCD and jog dial button</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Event Manager built-in control feature</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Dimensions:</td>
<td>442 W (482 with ears) x 300 D x 87.8 H mm</td>
<td></td>
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</table>
The MMX6x2-HT220 is our solution for a practical standalone matrix switcher specifically designed for meeting room and classroom environments. The compact MMX6x2-HT220 has six video inputs and two video outputs - four HDMI 1.4, two TPS inputs and two independent HDMI outputs, both outputs have mirrored TPS outputs. 4K@30Hz, 3D capabilities and HDCP are fully supported. The device also has four audio connectors for audio insertion and two audio outputs for de-embedding purposes. These features makes this standalone matrix unique on the market. PoE 48V remote powering is available on every TPS ports (both inputs and outputs) for cost effective installations.

Features:
- 6x2 multiport matrix switcher with HDMI and TPS ports
- 4K / UHD (30Hz RGB 4:4:4, 60Hz YCbCr 4:2:0) and 3D capabilities
- 4x HDMI 1.4 input + 2x TPS input
- 2x independent AV output
- Two ports per output: mirrored HDMI + TPS
- PoE (48V) injector on every TPS port (both TPS inputs and outputs)
- Up to 170 m* transmission distance over TPS
- Balanced analog audio inputs and outputs with adjustable volume
- Event Manager

*Depends on cable category and quality

I/O Connectors Comparison Chart

<table>
<thead>
<tr>
<th></th>
<th>HDMI in</th>
<th>TPS in</th>
<th>HDMI out</th>
<th>TPS out</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMX6x2-HT220</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>MMX6x2-HT210</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>MMX6x2-HT200</td>
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<td>2</td>
<td>0</td>
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</table>
MMX Series 6x2 HDMI TPS Matrix Switcher

**MMX6x2-HT210**
Part No: 9131 0031

MMX6x2-HT210 is almost fully identical with the MMX6x2-HT220 model and offers all of its functions, but it only has one of its HDMI outputs mirrored as TPS port.

Features:
- 4K / UHD (30Hz RGB: 4:4:4, 60Hz YCbCr: 4:2:0) and 3D capabilities
- 6 input 2 output video matrix
- 4 HDMI 1.4 and 2 TPS inputs
- 2 independent AV output streams
- Two separate HDMI and one mirrored TPS output ports (the two ports can transmit the same AV content simultaneously)
- Audio insertion and de-embedding options
- Fully HDCP compliant
- PoE (48V) injector on every TPS port (both TPS inputs and outputs)
- RS-232, Ethernet, IR control options
- Event Manager support
- Compact one RU chassis

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**MMX Series 6x2 HDMI TPS Matrix Switcher**

**MMX6x2-HT200**
Part No: 9131 0030

MMX6x2-HT200 is almost fully identical with the MMX6x2-HT220 and MMX6x2-HT210 models and offers all of their functions, but it does not have TPS ports at the output end.

Features:
- 4K / UHD (30Hz RGB: 4:4:4, 60Hz YCbCr: 4:2:0) and 3D capabilities
- 6 input 2 output video matrix
- 4 HDMI 1.4 and 2 TPS inputs
- 2 independent AV output streams
- Two HDMI outputs
- Audio insertion and de-embedding options
- Fully HDCP compliant
- PoE (48V) injector on every TPS port
- RS-232, Ethernet, IR control options
- Event Manager support
- Compact one RU chassis
4K UHD 4x2 Matrix Switcher with HDBaseT™ and HDMI

**MMX4x2-HT200**

Part No: 9131 0035

**Features:**
- 4x2 HDMI matrix switcher, with HDMI and TPS ports
- Up to 170 m transmission distance over TPS*
- 4K/UHD (30Hz RGB 4:4:4, 60Hz YCbCr 4:2:0) and 3D capabilities
- Fully HDCP compliant
- Balanced analog audio input and output for embedding and de-embedding audio
- Audio volume and gain control on analog inputs and outputs
- **Event Manager**
- RS-232, IR, Ethernet control capabilities
- Compact size

* Depends on cable category and quality

**Advanced Pack Features:**
- Support to send raw Infrared messages (Pronto HEX codes) to control TVs, Blurays, etc with connected IR emitters
- Support to send CEC messages to control TVs, Blurays etc which are connected on HDMI ports
- Support to recognize incoming CEC messages in Event Manager and trigger custom actions
- Support to recognize incoming RS-232 messages to integrate with 3rd party devices like VC codecs
- Increased number of Events to 100

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TPS Receiver with Relay Modules and Balanced Audio Out with USB KVM

**HDMI-TPS-RX220AK**

Part No: 9154 0022

**Features:**
- HDMI 1.4 TPS receiver with audio de-embedding capability
- Up to 170m transmission distance over TPS*
- 4K/UHD (30Hz RGB 4:4:4, 60Hz YCbCr 4:2:0) and 3D capabilities
- USB KVM (HID) extension
- Fully HDCP compliant
- Balanced analog audio output for audio de-embedding
- Audio volume and gain control
- Event Manager built-in control application
- Powered by local or PoE remote power
- RS-232, IR, Ethernet extension
- Advanced EDID Management and Frame Detector
*Depends on cable category and quality

**Plus Features:**
- Support to send raw Infrared messages (Pronto HEX codes) to control TVs, Blurays, etc with connected IR emitters
- Support to send CEC messages to control TVs, Blurays etc which are connected on HDMI ports
- Support to recognize incoming CEC messages in Event Manager and trigger custom actions
- Support to recognize incoming RS-232 messages to integrate with 3rd party devices like VC codecs
- Increased number of Events to 100

The Lightware HDMI-TPS-RX220AK receiver offers seamless HDBaseT™ integration with additional Lightware product lines and developments, including TPS matrices and 25G boards. The device receives digital video at a resolution up to 4K, as well as audio and control up to 170 meters* over a single CAT cable. Furthermore, the device utilizes control over USB KVM, and can be remotely powered over TPS link with PoE (IEEE 802.3at), a useful array of features to further simplify the operation for system integrators and users.

UMX-TPS-TX140K only in point-to-point application with HDMI-TPS-RX220AK